

Applicants have enclosed the requisite fees for the new claims. Applicants respectfully submit that no new matter has been added.

REMARKS

Upon entry of the amendments, claims 1-27 will be pending in the application. The Examiner has indicated that claims 1-7 are allowable because the prior art of record fails to disclose a method of depositing a tungsten silicide layer using a phosphorous containing gas as claimed by the instant application.

The Examiner has also indicated that claims 9-11, 13, 14, and 16-21 would be allowable if rewritten in independent form including all the limitations of their base claim and any intervening claim.

The Examiner has rejected claims 8, 12, and 15. Applicants request reconsideration of these rejections based upon the following comments.

Claim Rejections – 35 U.S.C. § 103

Claims 8, 12, and 15 are rejected as obvious in light of Doshi (US 6,277,720) in view of Hashimoto (US 6,251,188).

Applicants respectfully request that this rejection be withdrawn based upon 35 U.S.C. 103(c). This section of the statute details that subject matter developed by another which qualifies as "prior art" only under one or more of subsections 35 U.S.C. 102(e), (f)

and (g) is not to be considered when determining whether an invention sought to be patented is obvious under 35 U.S.C. 103, provided the subject matter and the claimed invention were commonly owned at the time the invention was made.

Hashimoto '188 is currently assigned to Tokyo Electron Limited. Hashimoto '188 was filed on Dec. 29, 1999 and issued on June 26, 2001.

The present application is assigned to Tokyo Electron Limited (reel/frame 011446/0516). The present application was filed on January 11, 2001 and claims a January 11, 2000 priority date.

Hashimoto '188 should not be considered when determining whether the claimed invention is obvious in light of 103(c).

As noted in the Office Action, Doshi fails to hint, suggest, or teach certain features present in claims 8, 12, and 15. Therefore, the obviousness rejections should be withdrawn.

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Applicants also note that the parent case to Hashimoto '188, Hashimoto (US 6,022,586), should not be considered in deciding whether the invention is obvious because it only qualifies as 102(e) prior art and is commonly assigned to Tokyo Electron Limited.

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Applicants also note that both Hashimoto patents claim priority from the following application: JP 09-065453. This application was published on September 14, 1998 as publication number 10-247627. This publication is being forwarded to the Examiner via an Information Disclosure Statement.

Applicants do not believe that the Japanese publication is adverse to the rejected claims, but are filing the document in view of the Examiner's citing of Hashimoto '188. Applicants respectfully submit that the publication fails to teach, hint, or suggest "a side wall oxidizing step of forming a silicon oxide film on a side wall of a gate electrode/wiring layer". The publication also fails to suggest the unexpected advantageous effect of the present invention, which is gained by combining a "step of depositing a tungsten silicide layer on a polysilicon layer and a step of depositing a silicon layer on said tungsten silicide layer" with "a side wall oxidizing step of forming a silicon oxide film on a side wall of a gate electrode/wiring layer including said polysilicon layer and said tungsten silicide layer." The object to be attained and the advantageous effect of the disclosed publication is very different from those of the present invention.

Applicants respectfully submit that the "short-time annealing step carried out *between said depositing and oxidizing steps*" detailed in claim 12 is also not disclosed in the cited references or the disclosed publication. The Hashimoto documents disclose that the short time treatment of about 60 sec at about 600 to 700 is done for the deposition of a silicon layer and is different from the short time annealing step of claim 12.

New Claims

Claim 22 includes the subject matter of claim 15 and further specifies that the "silicon layer has a thickness of 50 to 200 angstrom". Support for this amendment is found on page 13, line 37 of the specification.

Claim 23 is dependent on claim 8 and also specifies the aforementioned thickness as detailed in claim 22.

Claim 24 corresponds to the subject matter of claim 1 but without the specified range of phosphorous.

Claim 25 adds the passivation film forming step to the subject matter of claim 8. Support for the passivation film forming step can be found on page 13, line 33 to page 14, line 16.

Claim 26 adds the passivation film to the subject matter of claim 15. Applicants note that the Examiner compares the silicon layer 7 shown in Figure 7 of the present invention with the nitride layer 26 of Doshi. Applicants assert that this is not a correct interpretation. In the present invention, as described in Example 4, an electrode/wiring layer is formed after the passivation layer is formed. This passivation layer may correspond to the nitride layer 26 of Doshi, but the silicon layer 7 of the present invention would not be similar to the nitride layer 26 of Doshi.

Claim 27 adds "wherein the tungsten silicide layer includes phosphorous atoms" to the subject matter of claim 15.

CONCLUSION

Applicants respectfully assert that the application should be allowed.

If any additional fees are due in connection with the filing of this response, such as fees under 37 C.F.R. §§ 1.16 or 1.17, please charge the fees to Deposit Account No. 02-4300. Any overpayment can be credited to Deposit Account No. 02-4300.

Respectfully submitted,

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Signature:



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